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(Signature) (Date of signature and deposit)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)
Steven R. Mead	) Group Art Unit 3635
Serial No. 10/645,720	) Examiner Jessica L. Laux
Filed: August 20, 2003	) Confirmation No. 8169
For: Multi-Layered Flooring Composite Including an Acoustic Underlayment	) Attorney Docket 1-29092

### **DECLARATION UNDER 37 CFR 1.132**

Mail Stop Amendments Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

State of Colorado, County of Boulder

Dan Sawyer, being duly sworn, deposes and says:

- 1. I am a 1982 graduate of Colorado University with a degree in liberal arts.
- 2. Prior to joining Brock USA, I was employed in marketing for Jay Medical in Boulder, Colorado and later at Sunrise Medical Inc. in Longmont, Colorado, and then subsequently for Rik Medical in Boulder.
- 3. Along with others I formed Brock USA in 1998, initially making sports products, and I now am CEO of Brock USA.

4. As CEO of Brock USA, I am responsible for marketing and sales of all Brock products.

### The Brock Underfloor Acoustic Layer

- 5. In 2005 we developed improved materials for use in multi-layer flooring composites of the type having a sub floor, a top floor layer, or overlayer, and a middle acoustic layer, or underlayer. The Brock acoustic flooring layer (underlayer) provides a flexible, durable, rot-resistant and mildew-resistant alternative to traditional acoustic flooring underlayer materials, which are heavy, cumbersome, rigid materials.
- 6. The Brock acoustic flooring layer is made of a plurality of discrete beads of substantially elastic, resilient material wherein portions of adjacent beads abut one another and other portions of the adjacent beads are spaced from each other to create spaces therebetween, and wherein substantially all of the adjacent beads are integrally joined together at the abutting portions thereof. These features make the Brock acoustic layer an excellent acoustical underlayment for laminate, wood or tile flooring and for use underneath concrete or poured gypsum flooring.
- 7. When we started developing the Brock acoustic flooring layer, people were skeptical that this product would work for underlayment for floors; they said it was too expensive, would not hold up, would not properly support the overlying floor, and would not be easy to install.
- 8. The market for floor underlayment is dominated by a heavy board that is difficult to work with, but relatively inexpensive. The traditional material for this application is cement board, known under the trade names Wonderboard and HardyBacker. When carrying cement board products up multiple flights of stairs, the physical strain on the installer is significant, and often requires several trips or mechanical equipment.

9. The other material used in this market, on a much smaller basis, is cork. Cork is lightweight and comes in rolls. However, the application for this product is frequently a tile floor, which is commonly laid in wet environments such as kitchens and bathrooms. Since cork rots with moisture, these floors often have to be replaced. Cork does give some sound attenuation due to the resiliency of the material. However, since the surface is smooth, one cannot achieve a very high bond strength between the tile and the underlayment. Poor bond strength between the overlying tile floor and the underlayment is a cause of tile cracking.

#### **Commercial Success**

- 10. Once Brock USA began selling the Brock acoustic flooring layer in 2005, demand for the product exceeded our expectations. Our sales took off so fast we ran out of manufacturing capacity in 2006. We have invested heavily in more equipment to increase our manufacturing capacity, but anticipate needing additional manufacturing capacity within a couple of years. During our first year of sales, we sold the Brock acoustic flooring layer at a rate of slightly less than 100,000 square feet per month. During 2007 we are selling the Brock acoustic flooring layer at a rate of almost 1,000,000 square feet per month. This is a 10-fold increase in two years.
- 11. I estimate that the Brock acoustic flooring layer has achieved at least a one percent share of the market for acoustic underfloor underlayment, and we expect continued increases in our share of this market. The market itself is not increasing, and our market share growth has been and will continue to be at the expense of the conventional products.
- 12. Our largest client, Custom Building Products of Seal Beach,
  California, who is the manufacturer of the conventional floor underlayment
  product WonderBoard, will offer a LIFETIME warranty on the entire floor
  assembly ONLY if the assembly uses the Brock acoustic layer, and not with their

own WonderBoard floor underlayment product. The lifetime warranty offered by our largest client is unparalleled in the industry. The Brock acoustic flooring layer is responsible for the ONLY flooring system with this warranty. The lifetime warranty is offered in part due to the ability of the Brock acoustic layer to attain an effective bond between the underlayment and the flooring layer.

- 13. The dramatic demand for this product in the marketplace is directly related to the attributes of the product defined in the claims of the patent:
  - The product includes a plurality of discrete beads of substantially elastic, resilient material.
  - Portions of adjacent beads abut one another and other portions of the adjacent beads are spaced from each other to create spaces between adjacent beads.
  - Substantially all of the adjacent beads are integrally joined together at the abutting portions.

## Discrete Beads of Substantially Elastic, Resilient Material

- 14. Because the Brock acoustic layer is composed of discrete beads of substantially elastic, resilient material, the acoustic layer is 1/20th the weight per square foot of the leading product for this market cement board. Since the Brock acoustic flooring layer is made of a substantially elastic, resilient material, the acoustic layer is also flexible. As a result, the physical strain on the installer is virtually eliminated, and the time to get the material to the site of installation is much less. Therefore, the use of the discrete beads of substantially elastic, resilient material makes this product commercially attractive.
- 15. In building construction, minimizing installation time is critical. Due to the light weight and flexibility of the Brock acoustic layer, once the installer begins working with the Brock acoustic layer, cutting, shaping, and overall installation is reduced by hours when compared to the time required for installation

of the leading cement board products. Our material installs in about 1/3 the time and is easy to cut and shape around objects (such as sinks). This results in a much lower installed cost, due to the reduced labor required for installation. Therefore use of the discrete beads of substantially elastic, resilient material makes this product commercially attractive.

- 16. The substantially elastic, resilient material gives the Brock acoustic layer a desirable resilient cushioning that provides vertical rigidity to bridge cracks and support heavy objects such as refrigerators. This also makes the Brock acoustic flooring layer commercially attractive.
- 17. We have also attained excellent results in sound attenuation. This is due, in part, to the resilience of our material. Impact noise applied to the finished floor is absorbed and dispersed laterally through the material instead of being transferred through the acoustic layer and to the lower surface. The sound absorption characteristics provided by the Brock acoustic layer are unique, allowing the user to use a thinner material while gaining the sound absorption of thicker materials. This reduces the thickness and weight of the multi-layered flooring composite, thereby allowing more usable cubic feet to be realized in a given building. This property of the Brock acoustic flooring layer results in increased sales of the product.

# Spaces Between Adjacent Beads

- 18. The market success of the Brock acoustic flooring layer is also due to the fact that there are spaces created between adjacent beads. This provides the product with low weight and flexibility. The advantages for the installer afforded by the low weight and flexibility are detailed above.
- 19. The spaces also give excellent results in sound attenuation. This is believed to be attributable in part to the "torturous" pathway through the spaces between the beads. I believe that this pathway breaks up the sound waves as they

travel through the material. The spaces in the acoustic layer also create a vibration and acoustic transfer break between the top surface (such as laminate flooring) and the sub-floor surface. Accordingly, the spaces in the Brock acoustic flooring layer make this product very attractive in the market.

20. The spaces between the adjacent beads also provide the ability of the Brock acoustic layer to attain an effective bond between the acoustic layer and the polymer-modified mortar that is used to bond the acoustic layer to the overlying flooring layer. The spaces between adjacent beads allow the Brock acoustic layer to form a stronger bond with the tile flooring layer. It is this improved bond strength that prevents the tile from cracking, and allows us to replace a very heavy, cumbersome material with our light weight composite in the market.

# **Integrally Joined at Abutting Portions**

21. Another product attribute of the Brock acoustic flooring layer is the fact that adjacent beads are integrally joined together at the abutting portions. This enables the Brock acoustic layer to be provided in a roll that is easy to work with during installation. Further, forces applied to the floor layer are spread out by the interaction of the integrally joined beads. Also, the integrally joined beads will not separate, and the floor layer will not bottom out on the sub floor layer. All of these product attributes help sell this product in the market.

### Conclusion

- 22. The dramatic increase in sales is NOT due to extraordinary advertising, but rather to the unique properties of the Brock acoustic layer. In fact, we do not advertise this product, and do not have an advertising budget for this product.
- 23. I hereby declare that all statements made in this declaration of my own knowledge are true, and that all statements made on information or belief are

believed to be true; and further, all these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and any patent issued from the application.

Daniel C. Sawyer

Sworn and subscribed before me

this Huday of December, 2007.

**Notary Public** 

My commission expires Ward 24, 2011